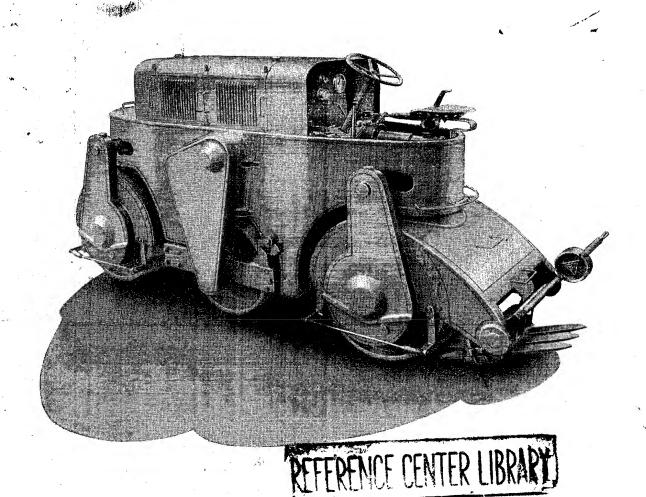
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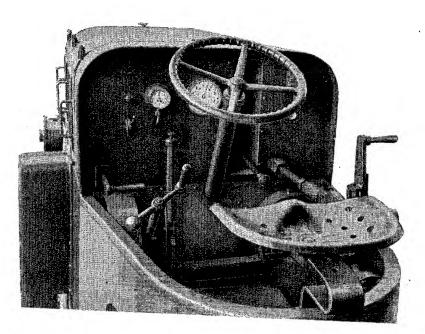
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WIBATION ROLLER

FILED FOR PATENT



Approved For Release 2003/12/01: CIA-RDP80-00926A000300020001-7



FIRMER, DEEPER AND QUI

All the types of rollers hitherto known work by the simple principle that the roller cylinders are to bring about a sufficient compression of the road material exclusively through their own weight. It is a matter of fact that essential defects oppose this method, because such materials as for instance stones and gravel with their rough surface are difficult to displace in relation to one another by a general weighted pressure. It may be done at the surface, but deeper down the absolute compression fails, even at very heavy pressure of roller. Too heavy a pressure of roller may, moreover, have the disadvantageous effect that the stones are crushed, which, of course, is not the intention.

By the make of concrete — not the least in case of concrete roads — this fact has long been considered, and during a number of years vibration has been applied, which renders a much better compressed concrete possible than the stamping method does. The principle of vibration has now been adopted in our latest new roller construction — vibration roller, type P. M. 7 A. The outstanding feature of the mode of operation of this roller is that the centre cylinder of a three-cylindred, three-shafted roller is furnished with vibrator with a vibration figure of 3600 per minute.

This vibration involves the following advantages:

- The roller pressure goes deep into the roadway.
- The covering material is properly distributed.
- The material is completely vibrated together.
- All gaps will be filled out with the sand. The roadway will obtain a firmer compression.
- The rolling is effected at a speed hitherto unheard of

Construction. Both the front and back roller are driven. The centre vibrator roller can be raised and lowered and be left free, if desired, so that it just follows the roadway. On the instrument board of the starting platform a variometer of a dial shows in centimetres and millimetres the surface deviations from the plane roadway.

If the vibrator roller is fixed, it will convey to the high parts a vigorous vibration, or the materials, which have not been fixed by rolling, will be pushed in place, so that high points in the roadway will be avoided, while, at the same time, the roadway will get a more even surface than by the use of other existing rollers. When the vibrator roller is raised we get a douple-rolled tandem roller with both rollers driven.

The principle of vibration might involve that the vibrations were transferred to the whole of the roller with destroying effect. This will never happen with a P. M. 7 A., our patented construction being of such a kind that only the path of the vibration roller will vibrate, as this is separated from the other parts of the roller by special, inbuilt rubber suspensions, which do not allow the vibrations to be conveyed to the roller.

The roller can be provided with cut-up steel in the usual way.

The front and back rollers are made of extra wearresisting cast steel. They run in heavy roller bearings,

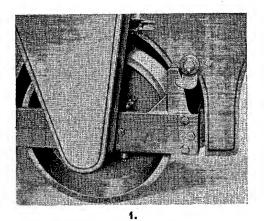
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which involve the smallest possible friction and are cheap in operation and oiling. The roller bearings are built into steel plate cylinder casings, which cover the rollers at top and are at the upper end provided with a pin which projects into the frame of the roller. Round this pin are placed heavy wearing rings through which the pressure from roller to cylinder is transferred. This principle renders the smallest possible stress of the pin and a quite especially stable construction.

The cylinders are driven by powerful roller chains running in dust-proof oilbath chain cases. Springloaded scrapers keep the cylinders clean.

As mentioned above, the vibrator roller is supported by our patented rubber suspension. The fixing and disengaging of the cylinder is effected from the strating platform, from which the cylinder can be raised and lowered in the fixed bearings of the roller frame.

CKER ROLLING



The vibrator shaft is drawn by means of V-belt drive, which can be let in by friction clutch from the starting platform.

The motive power is an explosion engine, e. g. a. BURWAIN diesel engine, which has a capacity of 28 HP at **Doc** revolutions per minute. The engine is furnished with right-angle gear with coupling and V-belt drive for vibrator and V-belt drive for coupling for the travelling driving-shaft, which goes to the chain driving-shaft of the front and back rollers.

The main frame of steel plate welded in one piece is constructed so rigid that the front and back rollers always roll in the same plan.

The steering is effected by steering machine drawn by the engine. The steering wheel throws in friction coupling in each steering direction and is turned in the angular motion corresponding to the turning of the front and back rollers. The driver of the roller has the same feeling with the turning as the driver of a motor-car, but it is the engine that turns the rollers.

The driving gears can be adjusted to two different driving speeds under vibration, to a greater speed for rolling without vibration and to driving speed for transport. The rolling gear is working at direct coupling, whereas the transport gear, which is used less, is overgeared.

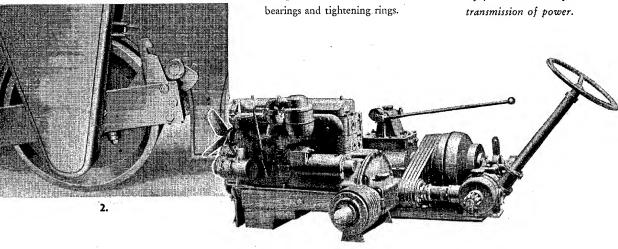
The reversing gear is a planet gear, which is working in grease and is in constant engagement. A friction coupling with dry friction provides a safe change-over, which is brought about by a single handle. The roller can be reversed direct from »forward « to »back «.

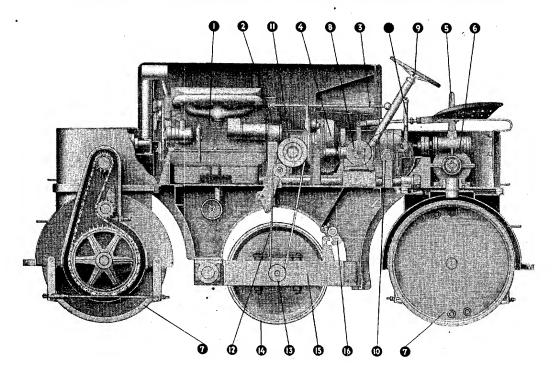
The right-angle gear, which is coupled direct to the

engine, is provided with screw-cut toothed wheels. The vibrator is coupled up through a springloaded dry conical coupling.

All the gear boxes are dust-proof and filled with oil or grease. They are provided with heavy ball bearings and tightening rings.

- 1. The vibrator roller locked in bottom position.
- The vibrator roller raised
 — not locked.
- 3. The engine with V-belt pulley for vibrator hody and transmission of power.





- 1. Engine
- 2. Gear box
- 3. Gear-change lever
- 4. Reversing coupling
- 5. Handle for reversing coupling
- Worm drive for driving rollers

Number of revolutions of the vibrator

..... 3600 revolutions per minute

- Driving roller, front and back
- 8. Steering machine
- 9. Steering wheel
- 10. Steering worm
- Right-angle gear with coupling
- 12. V-belt for vibrator
- 13. V-belt pulley for vibr.
- 14. Vibrator roller
- 15. Vibrator roller frame
- Locking hook for vibrator roller frame



TECHNICAL DATA FOR VIBRATION ROLLER TYPE P.M. 7 A

Weights and measures Distribution of pressure for rollers: Weight of the roller without With raised vibrator roller without ballast: front and back roller 35 kilos per cm Weight of the roller with water 8000 kilos With raised vibrator roller Diameter of front and back with ballast: front and cylinder 100 cm back roller 40 kilos per cm Diameter of vibrator roller .. 82 cm With lowered loosened vi-Width of all cylinders..... 100 cm brator roller without Centre distance between rollers 137 cm ballast: front and back roller 29 kilos per cm Total length of the roller . . . 406 cm With lowered loosened vi-Total width of the roller 140 cm brator roller with ballast: front and back roller . 35 kilos per cm Travelling speeds forward and back: Vibrator roller alone, free-Transport..... 6,40 km per hour suspended....... 12 kilos per cm Rolling..... 3,08 km per hour All rollers, fixed vibrator Vibration II....... 1,53 km per hour roller without ballast.. 23 kilos per cm Vibration I 0,78 km per hour All rollers, fixed vibrator

PEDERSHAAB MACHINE WORKS LTD.

HEAD OFFICE & WORKS:

CABLEGRAMS:

BRANCH OFFICE:

roller with ballast 27 kilos per cm

Engine capacity 28 HP

BRØNDERSLEV - DENMARK CEMENTINDUSTRI COPENHAGEN - DENMARK
PhoApptroved For Release 2003/12/01 : CIA-RDP80-00926A9003000200014-766

Hovedkontor og Fabrikker

BRØNDERSLEV

Telefon 450 (4 Linier)
Telegram-Adresse:
CEMENTINDUSTRI

Prospekt Nr. 1332

Afdelingskontor og Værksted

KØBENHAVN MV Vesterbrogade

Telefon ☆ Central 14066

PEDERSHAAB MASKINFABRIK

AKTIESELSKAB

P.M. Fortovs-Tandemtromle

Type T. 3-4 Tons

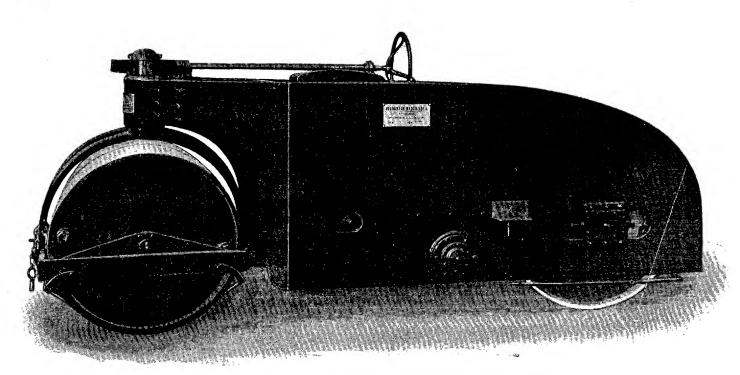
Tromlen er af mest moderne Konstruktion, og følgende Egenskaber kan fremhæves: Kileremtræk mellem Motor og Vendegearkasse med rigeligt dimensionerede Friktionshjul. Bagvalsen ophængt i Kulissestyr for Stramning af Trækkæder.

De »mekaniske« Dele som Vendegearkasse, Gearkasse, Vinkelgearkasse, Bremsesystem er let udtageligt for Eftersyn og Reparation.

Begge Valser er forsynede med Skrabere.

Betjeningen er i særlig Grad let, Tromleføreren kan fra sit fjedrede Sæde naa alle Manøvre- og Styreanordningerne.

Se Specifikationen paa Prospektets Bagside

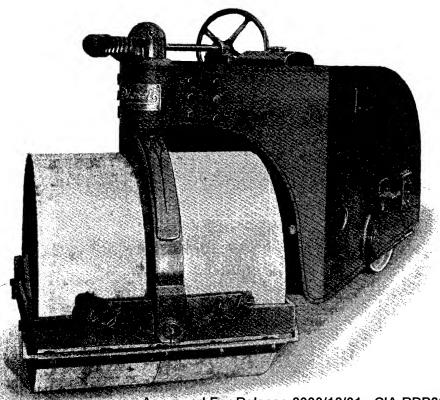


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Tromlens Specifikation

Totalvægt uden Vandballast	3	Tons
— med —	4	»
Diameter af Bagvalse	1000	mm
Bredde - —	900	»
Bagvalsens Tryk pr. løbende cm		
uden Ballast	16,7	kg
med —	22,2	»
Diameter af Forvalse	900	mm
Bredde - —	900	»
Forvalsens Tryk pr. løbende cm		
uden Ballast	16,7	kg
med —	22,2	»
Centerafstand mellem For- og Bagvalse	2310	mm
Tromlens Totallængde	3500	»
Tromlingsbredde	900	»
Tromlens Kørehastighed		
frem = $1,3-2,6-5,2 \text{ km/Time}$		
tilbage = $1,3-2,6-5,2$ » »		

Tromlen leveres normalt med 8 HK Dieselmotor



Bemærk Forvalsens store Drejeevne og specielle Ophængning med Anordning for Faststilling af Forvalserne til Tromling i samme Plan som Bagvalserne

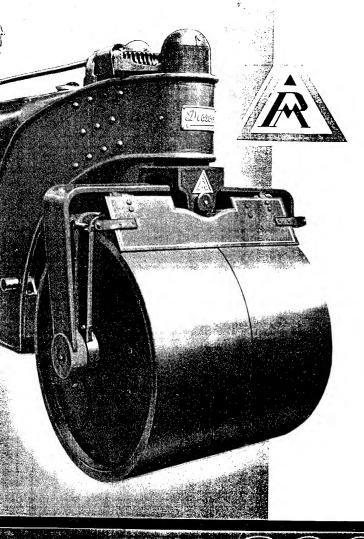
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Brønderslev Bogtrykkeri

Approved For Release 2003/12/01: CIA-RDP80-00926A000300020001-7 Tekniske Data for 7-8.5 Tons P.M. Tandem Tromle:

4.52		
Tromlens Vægt uden Ballast	7000 8500	kg.
Diameter af Bagvalse	1200	mm
Bredde " "	1200	mm
Bagvalsens Tryk pr. løbende		
cm. uden Ballast.	33.5	kg
Bagvalsens Tryk pr. løbende	,	
cm. med Ballast	39.8	kg
Diameter of Forvalse	1100	mm
Bredde " Dasassonsonsonsonsonsonsonsonsonsonsonsonson	1100	mm
	b minute as us	
Forvalsens Tryk pr. løbende	27	te or
cm. uden Ballasta	, 61	** 6
Forvalsens Tryk pr. løbende	2.4	1000
cm. med Ballaston	0005	ww.
Centerafstand mellem For- og Bagvalsa	, <i>4927</i>	Hill
Tromlens Totallangde	4/30	щи
Tromlingsbredde	°T500	mm
Tromlens Kørehastighed:		
frem $1.37 - 2.85 - 5.2 \text{ km/Time}$.		
bak 1.37 - 2.85 - 5.2 km/Time.		
Approved For Release 2003/12/01: CIA-RDP80-00926A00030002 Tromlen leveres normalt med 16 HK Dieselmotore	:0001-7	
TLOUTEH Teveres Hormware med To any agreement		

Approved For Release 2003/12/01 : CIA-RDP80-00926A000300020001-7



MACHINE WORKS

LIMITED

BRØNDERSLEV • DENMARK

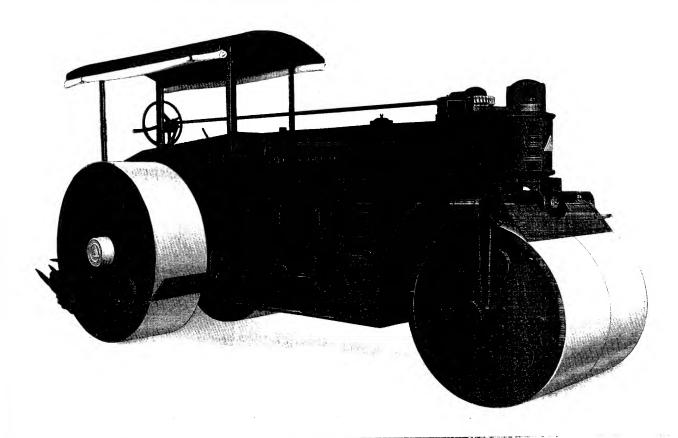
CABLE: CEMENTINDUSTRI

QUALITY MACHINERY

FOR MORE THAN

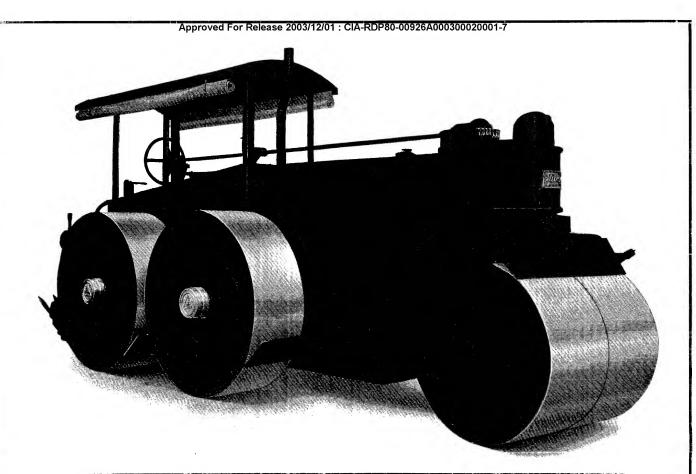
HALF A CENTURY

ROAD ROLLERS



PEDERSHAAB 2-AXLE (3-Wheel) ROAD ROLLER

Type B2/D Diesel Type B2/FS Fordson	Specification	8-10 Tons	10—12 Tons
PEDERSHAAB Road Rollers Type B2 are built according to the 3-Roller system	Diesel Engine, Horsepower at 1200 r.p.m	21	21
with one small front and two larger rear rollers. All the rollers are fitted with 2 spring	Fordson ,, , ,, ,, ,, 1100 ,,	24	24
loaded steel scrapers.	Diesel ,, , Number of Cylinders	2	2
The Power Drive for Type B2'D, a 21 HP LISTER Diesel Engine, the very finest British make embodying patented combustion chamber enabling the starting-up by hand	Fordson ,, , ,, ,, ,,	4	4
both summer and winter as easily as any petrol engine, thereby eliminating the	Weight of Roller without Ballast	8000 kg	10000 kg.
complicated starting by compressed air. The engine is of the 4-stroke type, completely enclosed, water cooled by means of a radiator. The fuel is SOLAR oil and the fuel con-	,, ,, with ,,	10000 ,,	12000 ,,
sumption approximates 200 grammes per Horsepower per hour at full load. The engine	Diameter of Rear Rollers	1300 mm	1550 mm
drives through a friction type clutch in either direction.	Width ,, ,, ,	2×440 ,,	2×500 ,,
The Power Drive for Type B2/F5, a FORDSON Tractor Engine with its well-known simplicity of control and high degree of economy. The engine is mounted so as to be	Pressure of Rear Rollers per cm Run without		T 0.1
accessible from all points. The clutch and the gearbox are of the FORDSON type giv-	Ballast	70 kg.	72 kg.
ing the roller 3 speeds forward and one back. The fuel is Kerosene and the consumption is about 300 grammes per Horsepower per hour at full load.	riessure of iteal fioriers per our	85 ,,	85 ,,
The Front Roller is cast from a special alloy S.M. steel and is mounted in two sec-	Ballast	1000 mm	1100 mm
tions in a very heavy steel fork, the solid construction ensuring smooth and even steering	Diamotor of the second	2×500 ,,	2×500 ,,
The Rear Rollers are cast from a special alloy S.M. steel and mounted on a heavy	Width ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,,	2,500 ,,	2,000
fixed axle. Each rear roller has its own independent differential drive which ensures constant power drive on each roller on an uneven surface.	Pressure of the Front Roller per cm Run without	19 kg.	28 kg.
The Scarifiers on each side possess 3 teeth and are operated and controlled with ease from the driving platform.	Pressure of the Front Boller per cm Run with Ballast	25 ,,	35 ,,
The Steering is effected through a worm gear of steel and bronze as well as cylin	Rear Rollers overlap Front Roller each side	130 mm	125 mm
drical spur wheels, this ensuring easy operation of the machine.	Centre distance between Front and Rear Rollers	3150 ,,	3350 ,,
The Lubrication System is of the most efficient type and ensures adequate lubri	Width of Track	1620 ,,	1745 ,,
cation of axles and all moving parts with no more than ordinary care and attention.	Total length of Road Roller	4650 ,,	5150 ,,
All bearings and gears are protected by covers, which exclude dirt and impurities.	Forward travel speed per hour (for Diesel and		
Roof over the Driving Platform, and screens on each side of the roof for protect	Fordson)		4650 ,, 5150 ,, 1-2-5 km 1-2-5 km
tion in bad weather are furnished with all rollers.	Reverse travel speed per hour (for Diesel)	1	1-2-5 ,,
Guorantee. We guarantee our road rollers for 12 months in respect of material an constructional defects.	d ,, ,, ,, ,, (,, Fordson)	2 ,,	2 .,



PEDERSHAAB 3-AXLE (5-Wheel) ROAD ROLLER

Type B5/D Diesel	Type B5/D Fordson	$\mathbf{S}_{\mathtt{pecification}}$	13—14 Tons	15-16 Tons
PEDERSHAAB Road Rollers, type B5	are built with 3 axles on the 5-wheel system.	Diesel Engine Horsepower at 1200 r.p.m	21	21
All the 4 rear rollers are driven. The 3-a:	xle system offers the advantage that any ruts	" " Number of Cylinders	2	2
or projections on the road are smoothed o	ut, as the centre roller presses upon the road	Weight of Roller without Ballast	13000 kg	15000 kg
	ine. — All the rollers are fitted with spring	,, ,, ,, with ,,	14000 ,,	16000 ,,
loaded steel scrapers.		Diameter of Rear Rollers	1300 mm	1300 mm
loaded steel scrapers.		Width ,, ,, ,,	2×440 ,,	2×440 ,,
Danier Duling for home DE(D Discol	PO'D	Diameter ,, Centre Rollers	1300 ,,	1300 ,,
Power Drive for type B5/D Diesel as specified for type B2/D.		Width ,, ,, ,,	2×440 ,,	2×440 ,,
		Diameter ,, Front Roller	1000 ,,	1000 ,,
Power Drive for type B5/FS Fordson	as specified for type B2/FS.	Width ,, ,, ,,	2×500 ,,	2×500 "
		Rear Rollers overlap Front Roller each side	120 ,,	120 ,,
The Front Roller and the Rear Rollers as specified for type B2.		Centre distance between Front and Rear Rollers	3540 ,,	3540 ,,
		Total length of Road Roller	5050 ,,	5050 ,,
The Centre Rollers are cast from a spec	cial alloy S. M. steel and mounted on a heavy	Width of Track	1760 ,,	1760 ,,
fixed axle. The centre Bollers are driven	by combined chain and gearwheel drive. An	Forward travel speed per hour	1-2-5 km	1-2-5 km
	entre rollers mechanically, an automatic stop	Reverse ,, ,, ,, ,,	1-2-5 "	1-2-5 ,,
	ons. In road curves, or when the Roller is	Distribution of Pressure per o	m (Width of	Rollers)
being turned, the centre rollers are raised	and the machine then operates in a manner	1) When the Centre rollers are free of road surface	I	1

The Scarifiers as specified for type B2.

The Steering as specified for type B2.

The Lubrication as specified for type B2.

Roof over the driving Platform as specified for type B2.

similar to the PEDERSHAAB standard 2-Axle Road Roller B2.

Guarantee: We guarantee our road rollers for 12 months in respect of material and constructional defects.

Distribution of Pressure per cm (Widt	th of Rollers)
1) When the Centre rollers are free of road surface	
Front Roller without Ballast 56 k	g 65 kg
,, ,, with ,, 58 ,	, 67 ,,
Rear ,, without ,,	
,, ,, with ,, 92 ,	, 105 ,,
2) When the Rear rollers are free of road surface	
Front Roller without Ballast 8,5	
,, ,, with ,, 6	., 7 .,
Centre Rollers without Ballast	,, 160 ,,
,, ,, with ,, 152	., 174 ,,
With the pressure of the 5 Rollers against the road surface	
Front Roller without Ballast	cg 40 kg
,, ,, with ,, 38	
Centre Rollers without Ballast	
,, ,, with ,, 55	,, 63 ,,
Rear Rollers without Ballast 56	
,, ,, with ,,	,, 68 ,,

he enormous development in road traffic all over the world entails a constant and increasing demand for the repair of existing roads and the construction of new automobile roads of modern types. Hence, authorities are ever on the look-out for first class materials and efficient service.

We wish to draw attention to our many years' experience which is at the disposal of anyone interested in roadbuilding. You may with full confidence approach us with your problems. We place at your service a competent staff of skilled experts who are at all times fully conversant with technical developments.

We possess more than 50 years' experience in the production of QUALITY machines, with the result that PEDERSHAAB Road Rollers are encountered all over the globe.

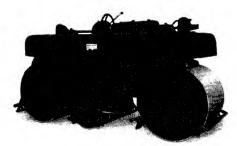


Type F/FS

Weight of Roller without Ballast 5000 kg

Weight of Roller with Ballast 6500 kg

Type F/FS. — This is a one wheel roller with water spraying attachment on top. Driven by FORD-SON tractor. Principally used for asphalt roads.

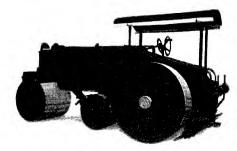


Type C/B

Weight of Roller without Ballast 6500 kg

Weight of Roller with Water Ballast 8500 kg

Type C/B is particularly adapted for asphalt roads. Driven and steered on front and rear roller. Centre roller is mechanically lifted and lowered. Front and rear roller can be supplied with water spraying attachment on request. Driven by Petrol or Diesel Engine.



Type B3/F\$

Weight of Roller without Ballast 12000 kg

Weight of Roller with Water Ballast 14000 kg

The advantage of this type is the automatic mechanical lifting and lowering of the centre roller.

Otherwise identical with type B2/FS specified inside.

We also produce a complete line of other roadbuilding equipment. Catalogues and prices will gladly be sent on request.

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FEDERSHAAB" Road Rollers Economical · Enduring · Easy to

MANUFACTURERS OF:

Concrete Mixers for Hand and Power • Machinery and Moulds for Cement goods • Conveyors for all purposes • Excavators • Gravel Screening Plants • Machines for covering Asphalt and Concrete Roads • Pavement Tampers • Pile Rammers and Winches • Locomotives (Petrol and Diesel) • Road Rollers (Kerosene and Diesel) • Stonecrushers • Vibration Plants • Steel Windows and Doors

Hertz' Annonceburea A/S L. Ihrichs Bogts.

operate • Manufactured according to our QUALITY principle • Rollers of special construction made to order • Information on request •

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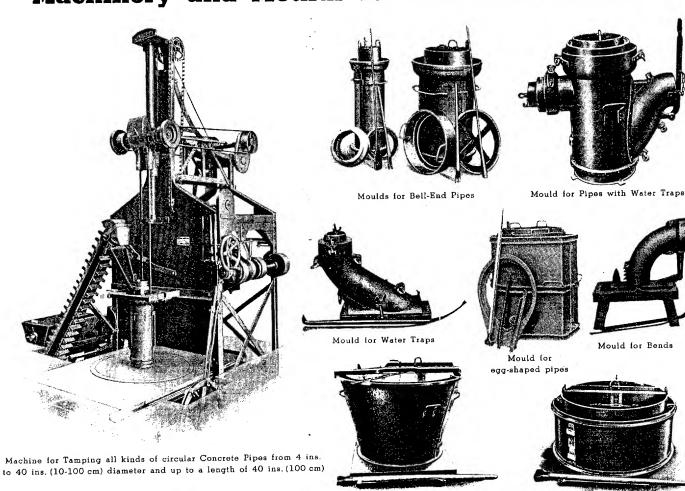
ELE AGENTURY OF EXPERIENCE

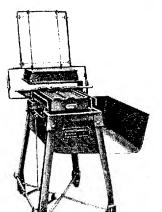
PEDERSHAVAB MACHINE WORKS ITD.

BEZONDERSLEY & DENMARK ** CEMENTINDUSTRI CODENHAGEN & DENMARK

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Machinery and Moulds for Concrete Products





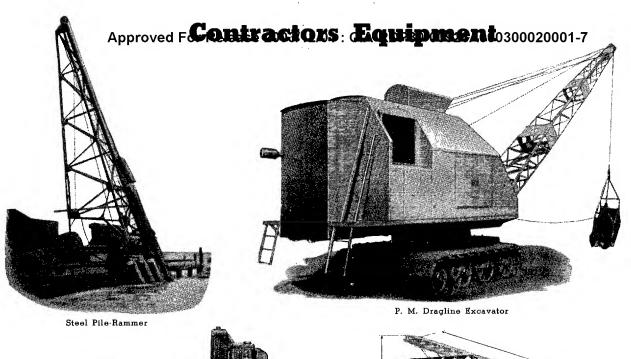




Machine for making Concrete Bricks

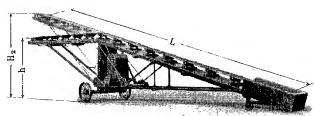
Machine for making Roof-Tiles
like our Models shown Left

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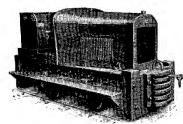


Pel Pile-Rammer

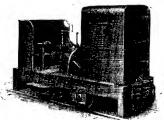
Diesel and Petrol Engine Pumps for low and high Pressure (rinsing pumps)



Portable Belt Conveyor

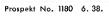


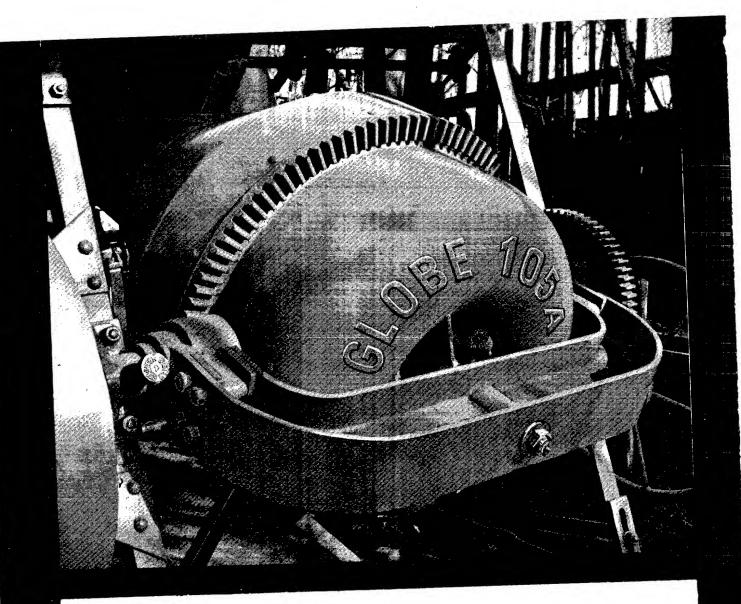
Locomotives with Petrol or Diesel Engines





Railroad Platform Locomotive with Petrol or Diesel Engine





The GLOBE Concrete Mixer gives real value for the money.

It is probably the fastest and most effective mixer in the world.

Its simplicity in design and quick dicharge, and the fact that thousands of our mixers are working all over the world should give the prospective purchaser sufficient confidence to communicate with us before deciding on any purchase.

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MACHINE WORKS LTD.

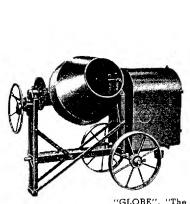


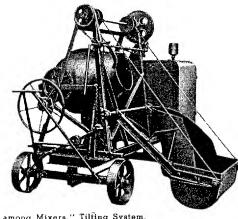


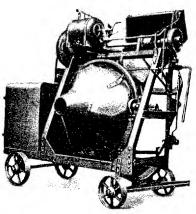
The above administration building was furnished throughout with PEDERSHAAB steel windows and doors. We manufacture designs suitable for all styles and types of architecture. Our main catalogue should be applied for by anyone contemplating building or alterations.

Our standard of quality and long experience is at your disposal.

Concrete and Mortar Mixers





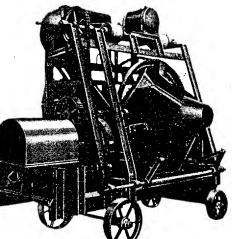


"GLOBE". "The Pearl among Mixers." Tilting System. from 5 to 10 cu. ft. (150 to 300 litres)

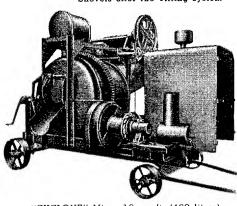
"JUTLANDIA", 8 cu. ft. (225 liter)
This Mixer differs from all other known
Systems. The Mixing is done without
Shovels after the Tilting system



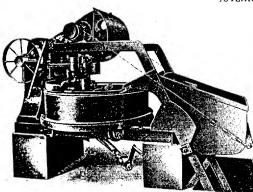
"GLOBE". Hand-Mixer for Concrete and Mortar 212 cu. ft. (75 litres) — Stationary and Portable



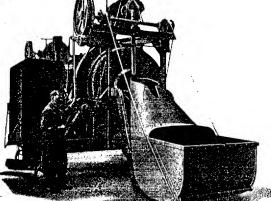
'JUTLANDIA" Mixers. 2 to 64 cu. ft. (65 to 1800 litres)



"CYCLONE" Mixer 16 cu. ft. (460 litres) with 2700 lbs. (1200 kg) Winch



"MIXTUS", 5 cu. ft. (150 btres).
The ideal Mixer for smaller
Concrete Product Plants



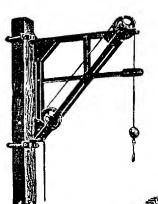
"CYCLONE" Mixers 121: to 100 cu. ft. (350 to 2800 litres The cylindrical Drum is furnished with Shovels and operates on the Rotary Principle

The "UNIVERSAL" Counter Current Mixer. 8 to 50 cu. ft. (225 to 1500 litres)



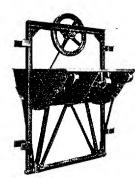
proved For Release;2003/12/01: CIA-RDP 11/1926A000300020001

Winches and Hoisting Accessories

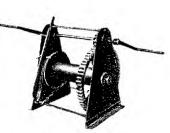




Concrete Tip-Pail 3,5 to 7 cu. ft. (100 to 200 litres)



Elevating Hopper for Concrete, Tip Type, 3,5 to 21 cu. ft. (100 to 600 litres)

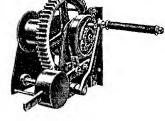


Winch for Erection on Floor 1100 to 1800 lbs. (500 to 800 kg)



Top-Beam with Pulley for Elevating Hopper





"FORCE" Winches for Hand Power

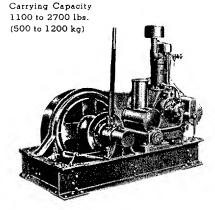


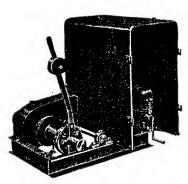




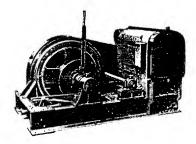


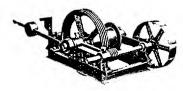
Rocker Dump-Cart for Concrete, 5 to 9 cu. ft. (150 to 250 litres)

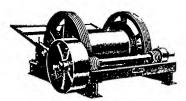


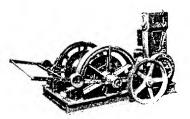


Winches for Pile-Rammers (conical friction) 550 to 8000 lbs. (250 to 3600 kg)



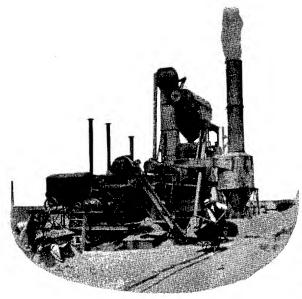




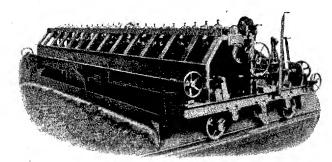


"FORCE" Winches 770 to 4000 lbs. (350 to 1800 kg) (groove friction)

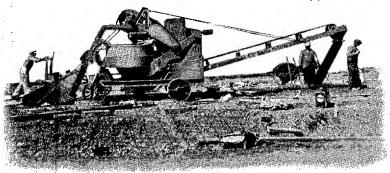
Appromachine 2003/1601: CRonal Buritating 20001-7



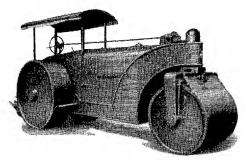
Plant for Asphalt Road Covering



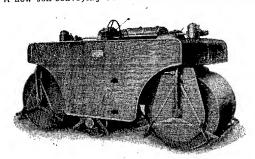
Road Finisher for Concrete Roads. Adjustable for Working Widths from 11 to 18 ft. (3,5 to 6 metres)



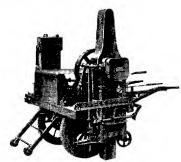
A new self-conveying Counter Current Mixer for Concrete Roads. 8 to 26 cu. ft. (225 to 750 litres)



"PEDERSHAAB" Road Rollers of 6-8, 8-10 and 10-12 tons with Diesel or Fordson Engine

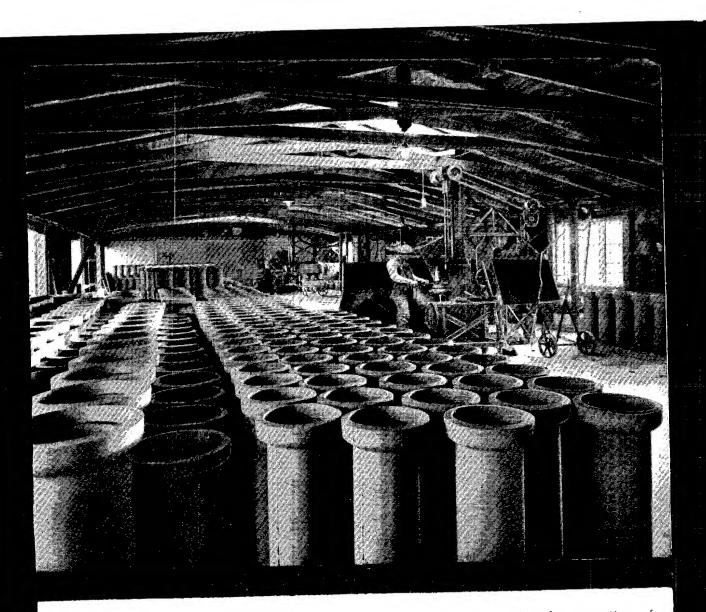


Road Roller particularly adapted for Asphalt Roads



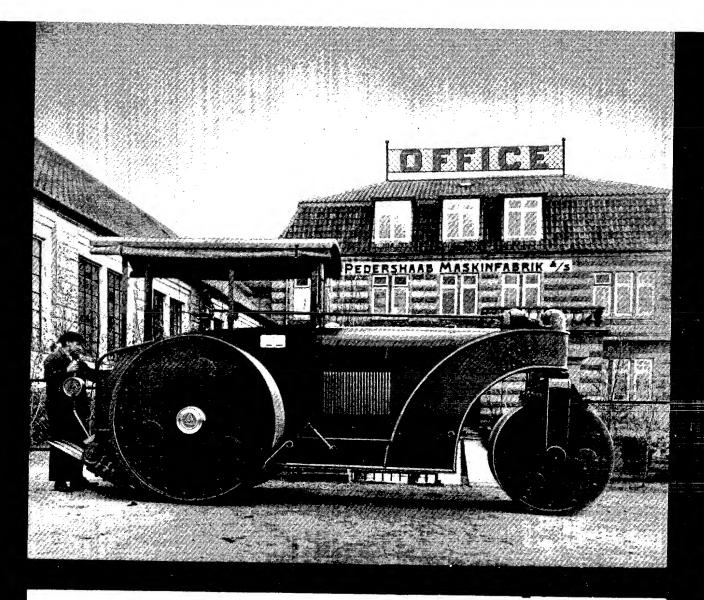
Pavement Stamping Machine. "EFFECT"





The demand for cement products is continually increasing, and the above section of plant is but one of hundreds completely equipped by us during our many years of practical experience.

We welcome an opportunity of supplying you with all the necessary information. Particulars and prices are gladly sent on request.



The world trend in the making of new roads combined with the maintenance of old ones has made road rollers one of our most popular products.

We manufacture rollers of all types and descriptions, but have found the type illustrated above the most popular on the world market to day.

Our many years' experience, and our constant efforts to produce QUALITY equipment have placed us among the world's leaders in this special field.

MANUFACTURERS OF :

CONCRETE MIXERS MACHINERY AND MOULDS

CONVEYORS FOR ALL EXCAVATORS GRAVEL SCREENING PLANTS MACHINES FOR COVERING

PAVEMENT TAMPERS PILE RAMMERS AND WINCHES LOCOMOTIVES ROAD ROLLERS STONECRUSHERS

VIBRATION - PLANTS STEEL WINDOWS AND DOORS



ESTABLISHED 1895

PEDER J. NIELSEN OSCAR NIELSEN

CABLE : CEMENTINDUSTRI BENTLEYS - A.B.C. STE EDITION

PEDERSHAAB MACHINE WORKS LIMITED

BRØNDERSLEV DENMARK

MESSRS. DEALER & USER ANYWHERE

This condensed pamphlet is sent to you for the pur-Dear Sirs, pose of showing some of our most popular export

We have only attempted for each item to illustrate products. the size most in use, but we produce any desired size and welcome the opportunity to quote on spe-

More than half a century of experience in the manucial jobs. facture of Quality merchandise has placed us among the pioneers, and this is the reason for our con-

Catalogues and literature dealing with each artinual success. ticle, with prices and detailed information will gladly be forwarded on request. Yours respectfully,

PEDERSHAAB MACHINE WORKS LIMITED

RINGSTED HAND STEERED SINGLE MOTOR ROLLER

RINGSTED JERNSTØBERI

& MASKINFABRIK Ltd.

RINGSTED

DENMARK

TELEPHONE: 48, CABLE: RIMAS

The Roller is made completely of steel. The Roller Rim consists of Siemens Martin steelplate.

The Roller turns round a fixed axle, and the roller hub is provided with bronze linings, all other transmissions are provided with ball or roller bearings. The engine is a 4 cylinder »Ford« petrol engine model ANGLIA of the newest construction, which at 1600 r.p.m. develops 8/10 HP. The engine is provided with I gear forward and I gear backwards, but the travelling speed can be varied considerably and in a handy way be regulated with a hand accelerator, placed on the steering strap. The engine is placed easily accessible on a frame outside the Roller and is balanced by a counterweight on the other side of the latter. The engine is 'easily and conveniently tended by a handle on the steering strap. The Roller is provided with stay rolls.

The Roller is executed in the 2 sizes mentioned below:

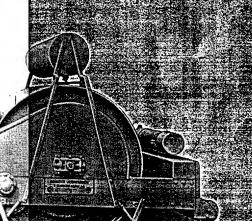
Diameter of the Roller 1500 m/m 1500 m/m Width » » 760 » 910 » Working Weight without load abt. 2000 kilos abt. 2400 kilos

TYPE N

Excellent for Surface Treatment

»Carpet Covering«, and Rolling of

Bicycle-Tracks and Foot-Paths



We must reserve ourselves a right to differ the Rollers from the illustrations and - if necessary - to provide the Rollers with other engines with the same strength

Approved For Release 2003/12/01 : CIA-RDP80-00926A000300020001-7

RINGSTED DIESELROLLERS

RINGSTED JERNSTØBERI

& MASKINFABRIK Ltd.

RINGSTED

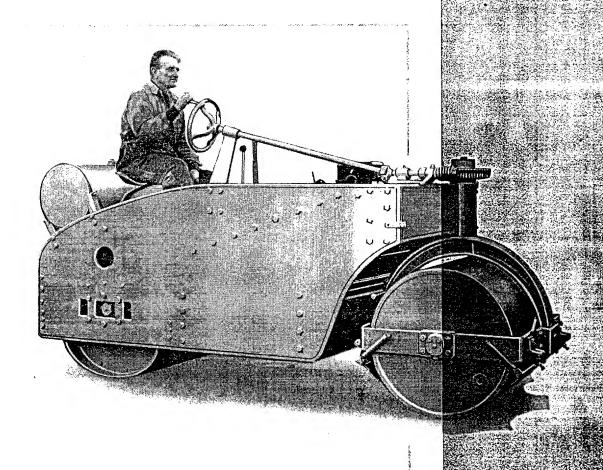
DENMARK

TELEPHONE: 48, CABLE: RIMAS



RINGSTED TANDEM DIESEL ROAD ROLLER TYPE

MD



WORKING WEIGHT 3,1 — 3,9 TONS

The RINGS IND TANDER EASE 2009/12/04 P. CMRDP80-00926A000300020001-7ghter road making at is quickly reversible and therefore especially suitable for rolling of asphalt concrete, carpet covering and other surface treatment, and also for rolling of earth filling, bicykle tracks, and foodpaths

The INCLUDE is a single cylinder horizontal 4 stroke Diesel engine, which is exceedingly dependable and very economic in use. It is easy to start and simple to tend. Fuel: Solar oil, consumption about 5 46 this spire 3 hour working day according to the kind of work. The power of the engine is transmitted to the rear collection, worm gearing, and strong roller transmission chains. Engine, and gearbox are placed on a common bedplate with three-point-suspension on rollber blocks:

The LUBERTANDER. The engine has pressure feed lubrication. Everywhere on the roller where grease lubrication, is used, it is effected by means of a modern pressure grease gun.

THE BOLL BILLYS are mide of special Siemens Martin cast steel of great wearhardness. The front coller is in two halves and all the rollers can be filled with water.

The IROUGHACHACS IS as built of strong steel plates. The right side is without projections, and the rollers are working close to it, so that it is possible to roll close to kerb-stones, house-walls, etc. The droit fock is a steel casting of modern construction, arranged so that the front followear be looked flush with the rear roller, which is very advantageous when rolling earth fillings.

THE STEPPENCE takes place by means of a steering wheel in connection with worm and

The CERNE IBOX (own constitution) is built together with a reversing gear, by means of which is speads can be obtained in other direction of travelling. The transmission of power between gear box and college as done by worm gearings and roller chains. The reversing is done by moving a gear lower forwards and backwards without disengaging the clutch.

BRAME. The collective with an effective brake, which can hold the roller stationary axes on steep hills,

The MOISURANG OF THE ROLLERS can be done by sprinkling pipes in connection with the soller

STREET UP BY A TUPO M

Marine Salar	
Total Weight of Roller without writer load	abt. 3100 kilos
A the second of	" 3900 "
Dignisitar of Change Roller	" 80 cm
A Rear A	, 90 ,
NAGATII . Broom	90 "
b lkgm b	90 "
Contro District Datyean Kolley	,, 220 ,,
Estal Length of Rollen	325 ,,
a With a second of the second	
Jeloight A The Arms Arms Arms Arms Arms Arms Arms Arms	
Engine 1 Cyl Diesel engine 1500 r. p. m.	10/11 H. P.
Normal Davelling Speed forwards and backwards	1.8-2.6-5 km per hour
Pressure per running on From Roller without load	abt. 16 kilos
	,, 20 ,,
without ,	
The Water Tank Oproved For Release 2003/12/01 : CIA-RDP80-00926A000	
The Water Tank contains lease 2003/12/01. CIA-RDF 00-00920A000	130002000 25 litres

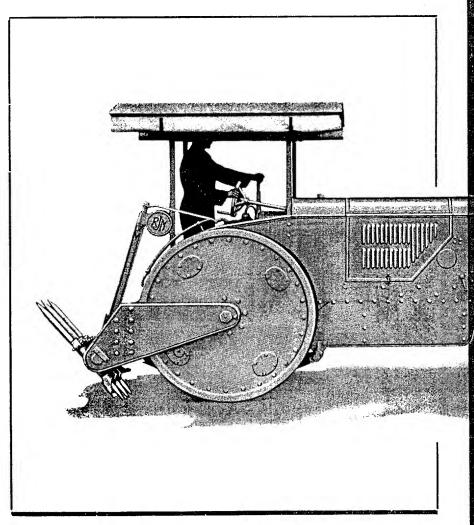
RINGSTED DIESELROLLERS

RINGSTED JERNSTØBERI & MASKINFABRIK Ltd.

RINGSTED

DENMARK

TELEPHONE: 48. CABLE: RIMAS, RINGSTED



WORKINGWEIGHT 8.5-10 10-12 TONS

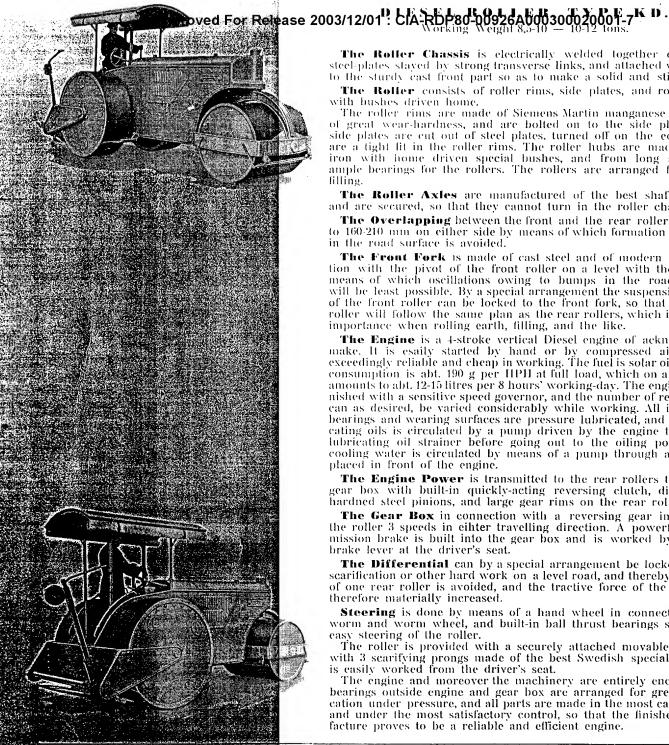


RINGSTED DIESEL ROAD ROLLER TYPE

KD

OUGKLY REMERSIBLE

GHEAR IN WORKING



The Roller Chassis is electrically welded together of strong steel-plates stayed by strong transverse links, and attached with bolts to the sturdy cast front part so as to make a solid and stiff whole.

The Roller consists of roller rims, side plates, and roller hubs with bushes driven home.

The roller rims are made of Siemens Martin manganese cast steel of great wear-hardness, and are bolted on to the side plates. The side plates are cut out of steel plates, turned off on the edges, and are a tight fit in the roller rims. The roller hubs are made of cast iron with home driven special bushes, and from long and very ample bearings for the rollers. The rollers are arranged for water

The Roller Axles are manufactured of the best shafting steel and are secured, so that they cannot turn in the roller chassis.

The Overlapping between the front and the rear rollers amount to 160/210 mm on either side by means of which formation of groves in the road surface is avoided.

The Front Fork is made of cast steel and of modern construction with the pivot of the front roller on a level with the axle by means of which oscillations owing to bumps in the road surface will be least possible. By a special arrangement the suspension frame of the front roller can be locked to the front fork, so that the front roller will follow the same plan as the rear rollers, which is of great importance when rolling earth, filling, and the like.

The Engine is a 4-stroke vertical Diesel engine of acknowledged make. It is esaily started by hand or by compressed air, and is exceedingly reliable and cheap in working. The fuel is solar oil, and the consumption is abt. 190 g per HPH at full load, which on an average amounts to abt. 12-15 litres per 8 hours' working-day. The engine is furnished with a sensitive speed governor, and the number of revolutions can as desired, be varied considerably while working. All important bearings and wearing surfaces are pressure lubricated, and the lubricating oils is circulated by a pump driven by the engine through a lubricating oil strainer before going out to the oiling points. The cooling water is circulated by means of a pump through a radiator placed in front of the engine.

The Engine Power is transmitted to the rear rollers through a gear box with built-in quickly-acting reversing clutch, differential, hardned steel pinions, and large gear rims on the rear rollers.

The Gear Box in connection with a reversing gear imparts to the roller 3 speeds in eihter travelling direction. A powerful transmission brake is built into the gear box and is worked by a hand brake lever at the driver's seat.

The Differential can by a special arrangement be locked during scarification or other hard work on a level road, and thereby skidding of one rear roller is avoided, and the tractive force of the roller is therefore materially increased.

Steering is done by means of a hand wheel in connection with worm and worm wheel, and built-in ball thrust bearings secure an easy steering of the roller.

The roller is provided with a securely attached movable scarifier with 3 scarifying prongs made of the best Swedish special steel. It is easily worked from the driver's seat.

The engine and moreover the machinery are entirely enclosed. All bearings outside engine and gear box are arranged for grease lubrication under pressure, and all parts are made in the most careful way and under the most satisfactory control, so that the finished manu-

facture proves to be a reliable and efficient engine.

Specification: Type KD 8,5 Type KD 10 trifal Weight of Roller without load 8.500 kilos 10,000 kitos y w w w with water lose in the rollers 10.000 12.000 Dingatae of Front Rollae 100 cm 110 cm Willia Viginales of Rear Rollers 122 122 » 130 150 15 50 23 kilos 28 kilos » with » 2835 » without » 63 6677 Total While of Rolling.... 180 cm 180 cm Centre Distance between Front and Rear Rollers 300 » 300 Total Length of Roller including scarifier 520 530 Width 25 38 190 3

Normal Travelling Speed forwards and backwards abt. 2 2.9 5 km hour Approved For Release 2003/12/01: CIA-RDP80-00926A000300020001-7

TANDEM - DIESELROLLERS

RINGSTED JERNSTØBERI & MASKINFABRIK Ltd.

RINGSTED

DENMARK

TELEPHONE: 48, CABLE: RIMAS, RINGSTED

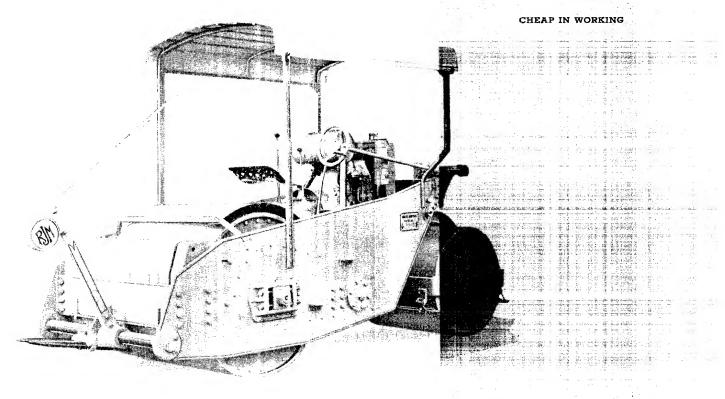


RINGSTED
TANDEM-DIESEL
ROAD ROLLER TYPE

GD

MAKKANIK

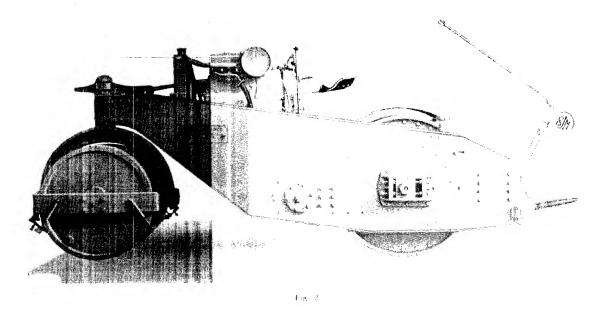
QUICKLY REVERSIBLE



WORKINGWEIGHT 6,5-8,0-9,0 TONS

Approved For Release 2003/12/01 : CIA-RDP80-00926A000300020001-7

Approved For Release 2003/12/01: CIA-RDP80-00926A000300020001-7



Ringsted Tandem Diesel Roller Type GD, is fit for all sorts of light Road-making, specially rolling of asphalt concrete, carpet covering, and other surface-treatment.

The Roller Chassis is built of strong steel plates, from fork and scarifier are made of cast steel,

The Front Fork is of modern construction. The Roller Rims are made of Siemens-Martin cast steel of a special wear-hardness. The front roller is in two halves, and all rollers are arrangered for water filling.

The engine is a 4 stroke vertikal 2 cylinder Diesel engine of approved Danish make. It is easily started by compressed air, and is exceedingly dependable and cheap in working. The first is solar oil, and the consumption is abt. 200 g per HPH at full load. The engine is fitted with a sensitive speed governor, and the number of revolutions can be varied considerably when working.

The Engine Power is transmitted to the rear roller through gear box, worm box with differential, and strong roller chains,

The Gear Box is built integral with a reversing year which gives the roller 3 speeds forwards and backwards, and gives the roller a soft start and change of the driving direction, only by moving a reversing bar backwards or forwards.

The Brake is an effective transmission brake which can hold the roller stationary even on steep hills.

The Steering is effected by a steering-whees on connection with worm and worm wheel and built-in ball thoust bearings ensure an easy steering.

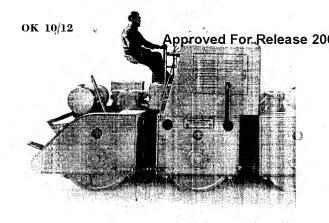
The Searifier is placed movable behind the roller. It is fitted with 2 searifier tools of the best Swedish special steel, and is easily tended from the driver's seat.

Roof over driver's seat and engine can be delivered when specially ordered.

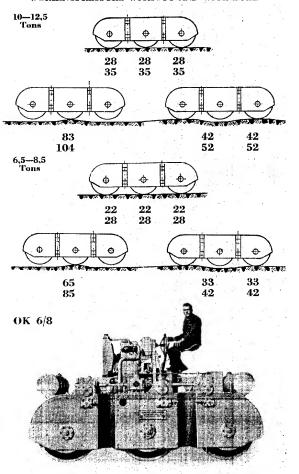
Cast Iron Load, abt. 1000 kilos distributed in 13 segments which can easily be mounted or dismounted, are delivered when specially ordered.

Accessories. All necessary lubricating and hand tools are delivered with every roller, I jack, 2 space scartier tools, and a tarpaulin for the engine.

otal '	Weight	of Ro	ller wit	hout l	oad				1/13	6.00	kilo
••						the roll				8000	
"	"	"	"	>>	**	.,	. а	and Cast Iron load		9000	
										10.0	em
ear										1,0	
ront	" "									100	
ear										1,710	
	", Distanc									24, 5	
entre	Distanc	e bei	ween ir	ont an	u rea					485	
otal .	Length	or rol		uaing	зсаги	2.1	, · ·	Troa load		.00	
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	Width	"	,,							1.3	-
	Height									1,,	
ngine	: 2 cy.	l. ver	tical Di	esel en	gine.						
orma	l Travel	lling	Speed for	orward	s and	Backwa	irds	1.9 3.6		n bei	
Vorki	ng Press	ure c	f Front	Rolle	per	conning	g cm	without load	-44	ы, 21	kile
	,			**	•,,			with Water load		28	
**			"Rear	"	22			without load		:	
"	,				77			with Water load	,	13	
"	,		" "	**	"			with Water load and Cast Iron load		2	
99	>	, ,) 11	17	"						



WORKINGPRESSURE WITHOUT AND WITH LOAD



Approved For Release 2003/12/01 CIA-RDP80-00926A000300020001#76 s the newest antimost complete in the domain of roller. By the large number of 3 axle condrollers which we have already delivered the advantages of the same have been established, and the excellent results that have been achieved by our 6.8 tons. Under roller type Ok have highly encouraged us to develop that roller type further by the building of bigger types of which we have also delivered a considerable number, by preference type Ofs. (0.12, which has held its awn as a good and suitable roadroner for all road-works which may occur.

Type OK 6.8 is delivered without Searmer, whereas OK 10.12 is delivered with Searifier.

The Chassis is built in 3 parts made like hoves and connected with strong hinges of east steel, the parts are weided together of steel plates and well reinforced by strong x members. The pivots of the hinges are ease-hardened and ground and they men in hard bronze bushes.

The Rollers consist of Roller Rims. Side of ites, and Roller Hullwith hushes driven home. The Roller Rims are made of the besis, M. cast steel of great wearhardness, and they are welded together with the side plates. The Side Plates are on our of sieel plates means off on the edges, and fitted to the roller rims, the Roller Hubs are of cast from whith home driven bearing linings, and they I can lear and very annoty diagonal bearings for the rollers. The rollers are accurated for water fillings.

The Axles are made of the best shafting steel oid are firmly secured again Courning in the chassis.

The Lagines are vertical 1 stroke Diesel engines of test class Danish make provided with pressure feed lubrication. The engine for OK 40-12 is provided with pneumatic start. The engine for OK 6/3 can eas x for farted by hand \$\lambda\sigma\correct divergovernor with speed control is built on all angines, and the number of \$\varepsilon\correct divergence of the control is built on all angines, and the number of \$\varepsilon\correct divergence and \$\varepsilon\correct divergence in the control is contained at \$\varepsilon\correct divergence and \$\varepsilon\correct

The Gene Box (own construction) is built together with a reversing general by norms of which 3 speeds can be obtained in either direction of travelling. The reasonission of power between gene box and robers is done by worm general as and coller chains.

All Rollers are Driven. Between engine and gear box has elastic clutch is in crited. All axles in the gear box are running in tell or roller bearings. The coller chains are built into oil-tight and dust preon chains are

The steering is mechanical, driven by the engage, a special steering macronic is mounted on the central chassis, it turns the from and the rear chasses to the eight or to the left in such a way the all is rollers adjunct them elses tangentially to the turning circle. By a light summer of the steering wheel abit, for to the right or to the left, the steering in is true is coupled up, and by that means a good contact with the movements of the road-roller to contained.

The Working Pressure of the Rollers under various conditions is shown characteristly in the figures. The top figures state the working pressure per common can of roller width without load, and the herion figures with water load in the rollers.

Specification:		6.5 8.5 tons	(0/12.5 tons
Weight without load		6.500 kilo-	0 000 kilos
, with water load in the roller		8.500	2.500
Diameter of the rollers	+ +	100 cm	10a cm
Width ,, ,, ,, ,,		100	130
Working Pressure on level road wadcout load		22 kiloseem	23 kilos, cm
, 22 22 22 32 With		28	3.7
Working Width		100-еш	120 cm
Total Axle Base		265	510
Centre Distance between the roller		132.5 cm	Lin
Total Length of the roller with/without scarmer		without 365 cm	with 170 em
" Width		125 cm	Li0 em
" Height without roof		210 =	30
Diesel engine: Capasity		I FIF	344
" Number of revolution			
" " " " cylinder			

Approved For Release 2003/12/01 : CIA-RDP80-00926A000300020001-7

TRIPLEX - DIESELROLLERS

RINGSTED JERNSTØBERI & MASKINFABRIK Ltd.

RINGSTED

DENMARK

TELEPHONE: 48, CABLE: RIMAS



RINGSTED
TRIPLEX - DIESEL
ROAD ROLLER TYPE

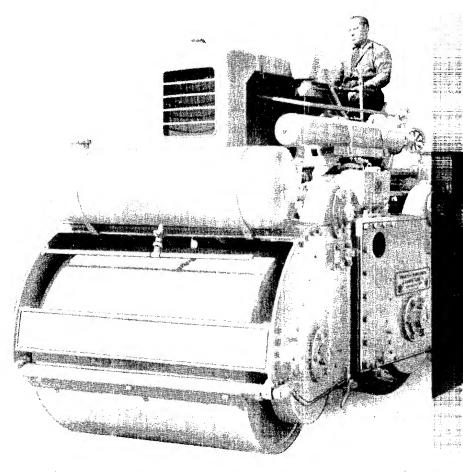
OK

PATENT NR. 439148

AIR-START — MECANICAL STEERING

UNSURPASSED IN MANOUVRE-ABILITY WORKING-SECURITY AND ECONOMI

ROLLS THE ROAD PLAIN
AND PREVENT WAVE CONTOURS



WORKINGWEIGHT 6,5-8,5

10-12.5 TONS

Obtained silvermedall at Royal Dublin
Society's Spring Show in Dublin May 1935

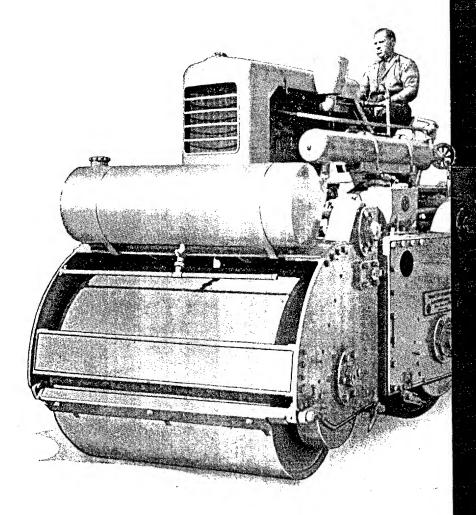
R F R D 03/12/01 : CIA-RDP80-009

DIESEL ROLLERS



AND OTHER MODERN ROAD MAKING





Ringsted Jernstoberi & Maskinfabrik

Limited

Iron Founders and Engineers Ringsted, Denmark

Specialist Factory for Motor Rollers
Approved For Release 2003/12/01: CIA-RDP80-00926A0003000200017

Cable: RIMAS, Ringsted Telephone: 48

RINGSTED MOTOR AND DI

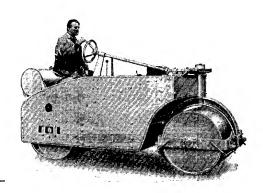


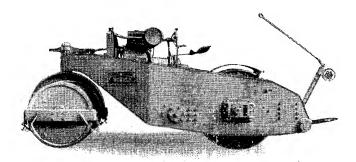
Single Motor Roller Type N in Sizes 2 and 2,4 tons

Roller diameter 1500 mm ,, width 760 mm - 910 mm (quickly reversible)

Diesel Engine Roller Type MD, 3-4 tons

(quickly reversible)



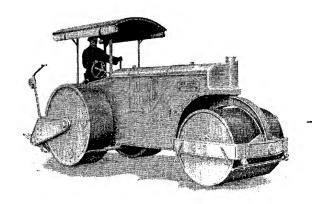


Diesel Engine Roller Type GD 6,5-8-9 tons

(quickly reversible)

Delivered more than 550 Motor an Approved For Release 2003/12/01: CIA-RDP80-00926A000300020001-7

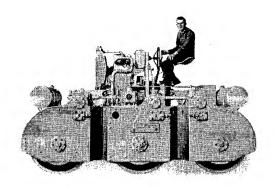
ESEL ROLLERS IN ALL SIZES

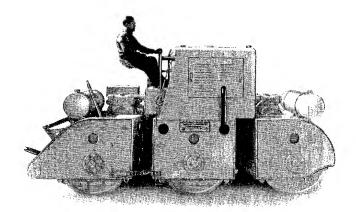


Diesel Engine Roller Type KD 8,5-10 and 10-12 tons (quickly reversible)

Triplex Motor Roller Type OK 6,5-8,5 tons

(mechanical steering) (quickly reversible)

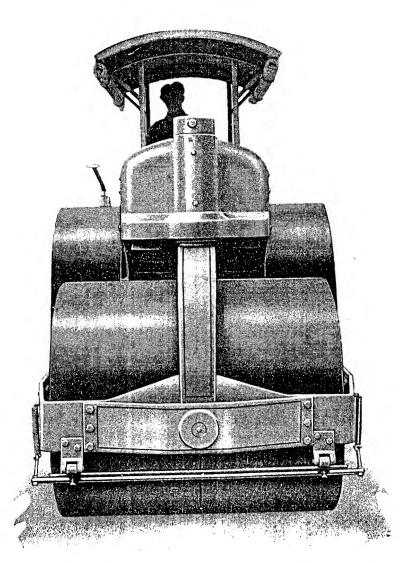




Triplex Diesel Engine Roller Type OK 10 - 12,5 tons

> (mechanical steering) (quickly reversible)

DEDENDABLEGOROXILE



Diesel engine Roller Type K D Working Weight 8,5-10 — 10-12 tons